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ABSTRACT

In recent years, a number of concepts have been introduced by communication researchers in an effort to transcend the limitations of the chronological age concept. Among these is the idea of contextual age, which asserts that social and environmental factors are better indicators of aging and communication behavior than is chronological age. A study was undertaken to (1) develop and examine an index of contextual age and (2) explore the associations among the component dimensions of that index and various sociodemographic descriptors, especially chronological age. The 18-item index that was constructed represented six interrelated dimensions: physical health, interpersonal interaction, mobility, life satisfaction, social activity, and economic security. The associations among contextual age and sociodemographic characteristics were examined for a sample of 640 people, ranging in age from 17 to 92. Results showed that contextual age transcended the limited heuristic nature of chronological age. Contextual age was shown to consider the individuality of aging, depending on life position indicators, and to be a more viable construct. The findings suggest that this concept should be considered in future communication and aging studies and that the continued use of chronological age as an absolute measure of aging and life position can only foster inadequate and inaccurate stereotypes of the elderly. (FL)

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CONTEXTUAL AGE: DEVELOPMENT OF A LIFE-POSITION INDEX

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Abstract

The contextual age construct is developed and examined as a life-position indicator of aging processes. The 18-item contextual age index represents six interrelated dimensions: Physical health, interpersonal interaction, mobility, life satisfaction, social activity, and economic security. The associations among contextual age and sociodemographic characteristics were examined for a sample of 640 persons. The findings showed that chronological age was negatively related to mobility and physical health and positively related to economic security and life satisfaction.

CONTEXTUAL AGE: DEVELOPMENT OF A LIFE-POSITION INDEX

Chronological age has been applied rather extensively in the social science literature as an indicator of communication and social behavior. However, the concept might actually have limited validity for the explanation of behavior, inasmuch as it erroneously assumes homogeneity in individual lifestyles and age cohorts while often ignoring individual differences in health, economic, communication, social, and psychological attributes. In short, merely living an equivalent number of years does not necessarily mean that two or more people are alike with respect to their life condition.

In recent years, a number of concepts have been introduced by researchers in an attempt to transcend the potential limitations of the chronological age concept. Most of these concepts, although conceptually explained, have been insufficiently developed into useful constructs for social and behavioral science application and measurement.

For example, the programmed perspective on aging argues that an individual's unwillingness to accept environmental changes may speed up the aging process (Wilson, 1974). The activity theory of aging maintains that social changes, such as forced retirement, or physiological declines would inhibit the attainment of various social and psychological needs by elder persons (Knapp, 1977). Personality conceptions of aging assert that personality factors are useful for explaining relationships between aging and life satisfaction (Havighurst, 1968; Neugarten, 1972; Neugarten, Havighurst, & Tobin, 1968). Disengagement theory views aging as a process of mutual withdrawal from social participation between individuals and society

(Cummings, 1963; Cummings & Henery, 1961).

In addition, several functional age perspectives maintain that an individual's physiological, psychological, and social life condition is more indicative of aging than is chronological age. For example, McFarland (1973) developed a physiological functional age concept in relation to stress and job performance. Dimmick, McCain, and Bolton (1979) offered a life-span position functional age concept that emphasizes the reliance of human development on shared life events and the social milieu of the times. Rubin and Rubin (1981, 1982) suggested the importance of environmental context in aging processes. Their contextual age construct includes communication, social, psychological, physiological, and economic dimensions of environmental context as improved indicators of aging and communication behavior than is chronological age.

The contextual age construct is obviously related to other functional age perspectives and is an outgrowth of previous gerontology research that asserts that social and environmental differences among individuals affect biological processes of aging (Kaluger & Kaluger, 1979). Several researchers, for example, have stressed the importance of health, social and marital status, communication channels and interaction, mobility, social relationships, and psychological satisfaction on aging (Graney & Graney, 1974; Hurlock, 1975; Pfeiffer, 1977; Schramm, 1969; Swank, 1979). Rubin and Rubin (1982) have argued that the component dimensions of contextual age, including physical health, interpersonal interaction, mobility, life satisfaction, social activity, and economic security, are heuristically useful for explaining communication behavior.

The purpose of the present work is to extend the development of

contextual age as a heuristic functional age and life-position construct. The two principal objectives are: (1) to develop and examine an index of contextual age; and (2) to explore the associations among the component dimensions of that index and various sociodemographic descriptors, especially chronological age. The underlying premise of the present work is that individual differences in the component dimensions of contextual age, such as life satisfaction and interpersonal interaction, are not restricted to a chronologically older population. The contextual age index is offered cognizant of the notion that a chronologically older age group is not an isolated and homogeneous entity, that chronologically older and younger persons may well exhibit and share similar contextual age characteristics, and therefore, the index is considered in relation to a broader-age-range population than simply those over 60 or 65 years of age. In other words, a 35-year-old person and a 70-year-old person may be quite similar in terms of, for example, their levels of interpersonal interaction, social activity, or life satisfaction, while two 35-year-old persons or two 70-year-old persons may be quite different.

Contextual Age Index Development

An identical survey instrument was administered to two samples of persons in two midwestern communities during the summer and fall of 1980. Members of the initial, "older-age" sample (N=340) were interviewed in their homes or at senior citizen group meetings by the two investigators and two trained research assistants. This group ranged in age from 55 to 92, with a mean age of 74.1 years. Members of the second, "younger-age" sample (N=300) were interviewed in their homes, at work, or at school by twelve trained interviewers from a communication research class. This group ranged in age from 17 to 83, with a mean age of 40.6 years. In most instances, the

instrument was self-administered. Included in the survey instrument were measures of contextual age and sociodemographic characteristics.

For each of the six hypothesized dimensions of contextual age--physical health, interpersonal interaction, mobility, life satisfaction, social activity, and economic security--five statements were presented to the respondents. Participants indicated their level of agreement with each of the 30 statements on a five-point scale, ranging from "strongly agree" (5) to "strongly disagree" (1), with the polarity of negatively-worded items later reversed for data analysis. Subsequently, through the application of Cronbach's alpha reliability coefficient to index construction and development, three statements were retained for each of the six contextual age dimensions. The combined 18-item contextual age index had a Cronbach's alpha reliability coefficient of .79. The retained items for each of the six contextual age dimensions are identified below. Comparisons are also presented of responses from the "older-age" initial sample group and the "younger-age" second sample group.

Physical health statements included: "I usually feel in top-notch physical condition;" "Healthwise, I am no worse off than anyone else my age;" and "I have serious medical or health problems." The inter-item correlation was .32, with a Cronbach's alpha of .58 for the three-item physical health scale. The scale had a .61 correlation with the contextual age index. Members of the younger sample group ($M=3.85$) indicated a slightly more positive perceived state of physical health than did members of the older sample group ($M=3.58$), although both groups' responses were in a positive direction.

Interpersonal interaction statements included: "I get to see my friends as often as I would like;" "I spend enough time communicating with my family or friends by telephone or mail;" and "I have ample opportunity for conver-

sation with other people." The inter-item correlation was .25, with an alpha of .49 for the three-item interpersonal interaction scale. The scale had a .64 correlation with the contextual age index. Members of the older sample group ($\bar{M}=3.72$) indicated a somewhat higher level of interpersonal interaction as compared with members of the younger sample group ($\bar{M}=3.54$).

Mobility statements included: "I usually drive my own car or use the city bus to get around;" "I have to rely on other people to take me places;" and "I usually don't travel more than a few blocks from my house each day." The inter-item correlation was .42, with an alpha of .68 for the three-item mobility scale. The scale had a .54 correlation with the contextual age index. Members of the younger sample group ($\bar{M}=4.21$) indicated a higher level of mobility than did members of the older sample group ($\bar{M}=3.56$).

Life satisfaction statements included: "I find a great deal of happiness in my life;" "I've been very successful in achieving my aims or goals in life;" and "I am very content and satisfied with my life." The inter-item correlation was .46, with an alpha of .72 for the three-item life satisfaction scale. The scale had a .70 correlation with the contextual age index. Members of the older sample group ($\bar{M}=3.83$) indicated a slightly higher degree of life satisfaction than did members of the younger sample group ($\bar{M}=3.60$).

Social activity statements included: "I often travel, vacation or take trips with others;" "I often visit with friends, relatives, or neighbors in their homes;" and "I often participate in games, sports, or activities with others." The inter-item correlation was .30, with an alpha of .55 for the three-item social activity scale. The scale had a .69 correlation with the contextual age index. Members of the older sample group ($\bar{M}=3.26$) and of the younger sample group ($\bar{M}=3.23$) indicated rather consonant social activity levels.

Economic security statements included: "I have no major financial worries;"

"I have enough money to buy things I want, even if I don't really need them;" and "I live quite comfortably now and have enough money to buy what I need or want." The inter-item correlation was .48, with an alpha of .73 for the three-item economic security scale. The scale had a .58 correlation with the contextual age index. Members of the older sample group ($\bar{M}=3.51$) indicated a greater sense of perceived economic security than did members of the younger sample group ($\bar{M}=3.14$).

Table 1 presents the correlation matrix for the six dimensions of the contextual age construct. As can be observed from the tabled data, most of the dimensions (with the exception of mobility and economic security) are significantly and positively interrelated. The most salient of the interconnected associations exist between several component dimensions including: Life satisfaction and interpersonal interaction, economic security, social activity, and physical health; interpersonal interaction and social activity; and physical health and mobility. In particular, and across chronological age distinctions, those persons who sense greater satisfaction with their lives maintain or perceive increased levels of interpersonal interaction, social activity, economic security, and physical health. Socially active persons also interact often with other individuals. Physically healthy persons are more mobile than are the less healthy. Consequently, the contextual age life-position construct clearly emphasizes the interrelatedness of communication, social, psychological, physiological, and economic dimensions.

(Table 1 about here)

Contextual Age and Sociodemographics

Sociodemographic information gathered from the respondents and the process of data coding were as follows: Age (ranging from 17 to 92 years); sex (male = 0, female = 1); education (ranging from a low level of 1 for

grade school to a high level of 6 for graduate school); family size (ranging from 1 to 8 persons); occupation (ranging from a low level of 0 to a high level of 12, coded through application of the Trolldahl (1967) "Occupational Prestige Scale"); and income (ranging from a low level of 1 for \$100 or less to a high level of 9 for \$801 or more of available monthly spendable income after paying for basic necessities).

Aside from considering the development and content of the contextual age index, the second objective of this paper sought to examine the associations among contextual age and sociodemographic characteristics. Chronological age and several other sociodemographic traits of these respondents are related to several contextual age dimensions. With the exception of income level, however, sociodemographic characteristics are not significantly related to the overall contextual age index. Pearson correlations among contextual age dimensions and chronological age, and partial correlations, controlling for chronological age, between contextual age dimensions and other sociodemographic characteristics are summarized in Table 2. Since a sample of this size enables relatively small correlations to achieve statistical significance, interpretation of the tabled data will focus on those associations that are significant at or beyond the .01 level.

(Table 2 about here)

Chronological age is a significant correlate of several contextual age dimensions, being positively linked to economic security and life satisfaction and negatively related to mobility and physical health. From these data, it would seem apparent that although older persons are less mobile and less physically healthy than are younger persons, they are more economically secure and more satisfied with their lives. There is also a slight indication that older persons maintain higher levels of interpersonal interaction

than do younger persons.

In addition, chronological age is a significant correlate of several other sociodemographic characteristics, including sex ($r = .18$), education ($r = -.51$), income ($r = -.18$), and family size ($r = -.65$). Census data support these associations, lending convergent validity to these data. For example, there are more elder females than elder males in the population. Elder persons also possess lesser amounts of formal education, have lower availabilities of spendable income, and live more often by themselves or in smaller family units as compared to younger individuals.

In light of these significant correlations between chronological age and both contextual age dimensions and sociodemographics, the age of the individual was controlled for in examining the associations among contextual age dimensions and other sociodemographic traits. These partial correlations are also presented in Table 2.

Sex and education appear to be only minimally related to some contextual age dimensions. There are only slight indications that females exhibit a higher level of interpersonal interaction than do males, and that those persons with more formal education are more mobile than are those with less education. Family size is unrelated to any contextual age dimensions. Occupation is positively related to economic security; those individuals engaged in higher prestige occupations indicate a greater sense of economic security than do those in lower prestige jobs. Income is a positive correlate of economic security, mobility, life satisfaction, and physical health to a lesser extent. Those persons with more monthly spendable income are more economically secure, mobile, satisfied with their lives, and healthy than are those with less available income.

Of related interest here is the notion that a sense of economic

security is not tied solely to an individual's amount of available income. Although levels of spendable income and economic security are positively associated, and chronological age and income are negatively related, chronological age and economic security are positively linked. In assessing the connection between economic security and chronological age, while controlling for an individual's income level, the association increases ($r = .37$). Consequently, although elder people may possess less spendable income, they obviously sense a greater degree of economic well-being than do younger people. In short, a sense of economic security has to do with more than simply how much money a person has available to spend each month after paying for basic necessities. This finding is consistent with the distinction between income and economic welfare drawn by Havighurst (1975).

Conclusions

The results of this analysis indicate several conclusions about aging and life-position. First, contextual age, as a functional age construct, is a viable and reliable index of life-position. Second, while chronological age is not a significant correlate of the contextual age index, it is associated (in various directions) with several component dimensions of contextual age. Therefore, the validity of chronological age as a single measure of life-position would appear to be quite weak. Third, the physiological, communication, social, psychological, and economic components of contextual age are not isolated entities, but rather are interrelated dimensions of contextual age, as a functional age indicant. Fourth, the contextual age construct clearly calls into question various negative myths about aging. A further examination of several of the findings of this analysis illustrates and supports these conclusions.

Some of the relationships among chronological age and contextual age dimensions appear to be stereotypic and concern understandable physiological changes found in the aging process. For example, chronological age is negatively correlated with health and with mobility; as persons age, their perceptions of their physical health condition and mobility status decrease. These two contextual age dimensions are understandably interrelated as one (mobility) often depends on the other (physical health). However, although the younger persons in these samples are more mobile and physically healthy than are the older persons, the older persons' responses were generally on the positive side of the midpoint of these two scales. Aging, then, may be accompanied by declines in physical health and mobility, but does not indicate a condition of immobility or infirmity.

Other associations among chronological age and contextual age dimensions are less stereotypic, and even more strongly question the negative myths about aging. For example, chronological age is positively correlated with economic security, life satisfaction, and interpersonal interaction; as persons age, their perceptions of their economic security, life satisfaction, and interpersonal interaction levels increase. These contextual age dimensions are also understandably interrelated as increased amounts of contact with other people and an increased perception of economic well-being contribute to a sense of satisfaction and contentment with life. In brief, the older persons in these samples are more secure economically, satisfied with their lives, and interact interpersonally more often as compared to the younger persons.

Of additional interest here is that levels of economic security are higher for the older age group in these samples, even though they report lower amounts of available spendable income than does the younger group.

These findings may appear to be inconsistent, but not when considering the notion that economic security is not dependent solely on the amount of money a person has to spend. Older persons on fixed incomes may feel more secure than younger persons with variable incomes, not only because those with variable incomes must consider potential changes or even the absence of income, but also because they may have some relatively stable expenses, such as paid-up or low interest mortgages. Aging, then, may be accompanied by the loss of some social ties and a reduction in absolute spendable income, but it does not indicate a void in economic security, life contentment, or interpersonal interaction. In fact, aging may well indicate a greater sense of economic well-being, an expanded interpersonal network, and satisfaction with the present life condition.

Contextual age, then, transcends the limited heuristic nature of chronological age. Contextual age considers the individuality of aging, depending on life-position indicators, and becomes a more viable construct, one which should be considered in future communication and aging studies. The continued use of chronological age as an absolute measure of aging and life-position can only serve to foster inadequate and inaccurate stereotypes about elder persons.

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TABLE 1
Contextual Age Correlation Matrix

	Physical Health	Interpersonal Interaction	Mobility	Life Satisfaction	Social Activity	Economic Security
Physical Health	---					
Interpersonal Interaction	.26	---				
Mobility	.33	.15	---			
Life Satisfaction	.34	.48	.11	---		
Social Activity	.27	.40	.29	.39	---	
Economic Security	.12	.28	.06	.45	.25	---
CONTEXTUAL AGE INDEX	.61	.64	.54	.70	.69	.58

$\underline{r} = .08, \underline{p} < .05; \underline{r} = .11, \underline{p} < .01; \underline{r} = .14, \underline{p} < .001$ (two-tailed).

TABLE 2

Contextual Age and Sociodemographics Correlations

Sociodemographics	Contextual Age Dimensions						CONTEXTUAL AGE INDEX
	Physical Health	Interpersonal Interaction	Mobility	Life Satisfaction	Social Activity	Economic Security	
Age	-.18	.11	-.41	.20	-.06	.30	-.03
Sex	-.03	.11	-.10	-.05	.01	-.06	-.04
Education	-.03	.00	.12	.00	.02	.10	.05
Family Size	.07	-.01	.05	.03	-.04	.01	.03
Occupation	.08	.04	.05	.06	-.01	.15	.10
Income	.12	.01	.19	.15	.03	.33	.22

Note: Pearson correlations between age and contextual age dimensions are presented above along with partial correlations controlling for age between other sociodemographics and contextual age dimensions.

Income: $\underline{r} = .09$, $p < .05$; $\underline{r} = .12$, $p < .01$; $\underline{r} = .15$, $p < .001$ (two-tailed).

Other Variables: $\underline{r} = .08$, $p < .05$; $\underline{r} = .11$, $p < .01$; $\underline{r} = .14$, $p < .001$ (two-tailed).